

Injury among Residents of Yavapai County, Arizona 2005

Injury is a public health problem that impacts the lives of thousands of Arizona residents each year. Chronic pain, disability, large medical bills, changes in quality of life, and premature death are just some of the possible effects of injuries. These effects can extend beyond injured individuals to their families and communities. With non-fatal injuries, family members are often required to provide care, which can result in time away from work, loss of income, and increases in stress within the family. At the community level, the financial burden of injuries can include medical expenses, rehabilitation, lost wages, and lost productivity. Most injuries are predictable and preventable. Understanding the causes of injury is an important step toward reducing injury-related morbidity and mortality.

The following report identifies the leading causes of injury among residents of Yavapai County in 2005. This report is intended to be used as a guide for strategy development, program implementation, and evaluation. The Arizona Department of Health Services Injury Prevention Program operates under the vision of reducing injuries in Arizona using integrated surveillance and evidence-based interventions. This report was generated to increase awareness of county-specific injury issues and to facilitate opportunities for effective injury prevention activities.

Figure 1. Injury Pyramid for Yavapai County Residents, Arizona 2005

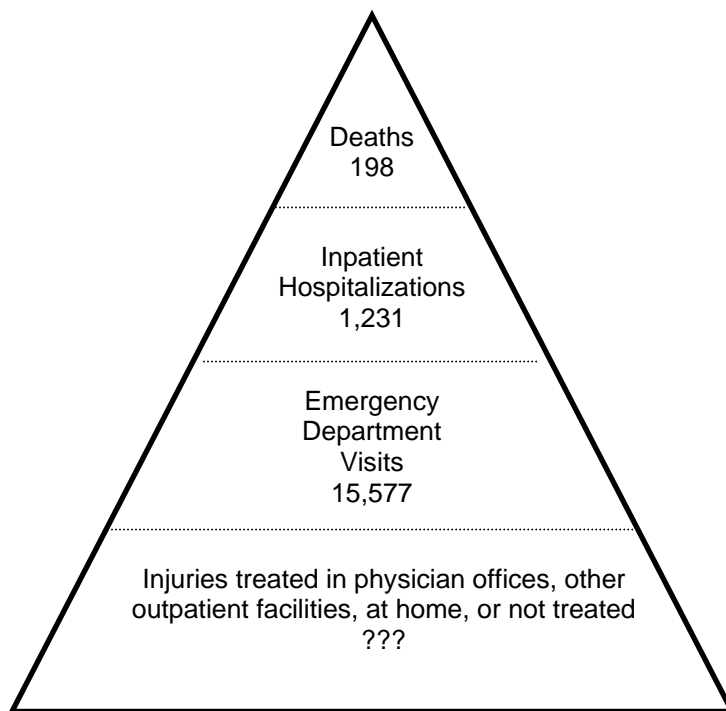


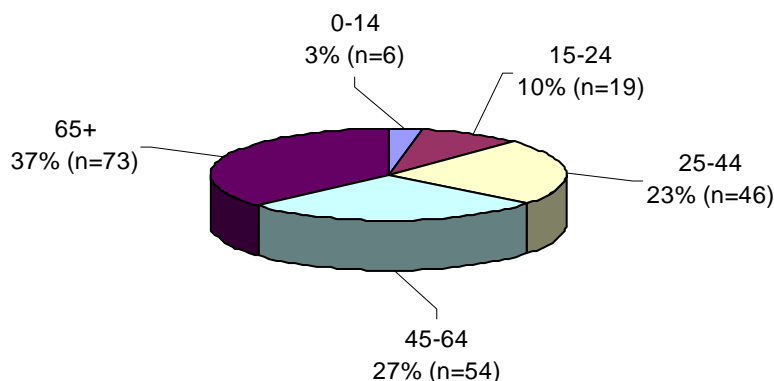
Figure 1 shows an injury pyramid for residents of Yavapai County during 2005. This pyramid shows that deaths represent the smallest proportion of injuries. The proportions increase towards the foundation of the pyramid, which is comprised of

hospital discharges, emergency department visits, and self care. Although injuries that do not require medical treatment may be the most numerous, no existing datasets capture these types of injuries.

Deaths

In 2005, there were 198 injury-related deaths in Yavapai County. Most of these deaths were among males (61 percent, n=121), and females accounted for 39 percent (n=77). The largest percentage of deaths was among individuals 65 years and older (37 percent, n=73). Age distributions are shown in Figure 2.

Figure 2. Injury-Related Deaths by Age Group, Yavapai County, Arizona 2005 (n=198)

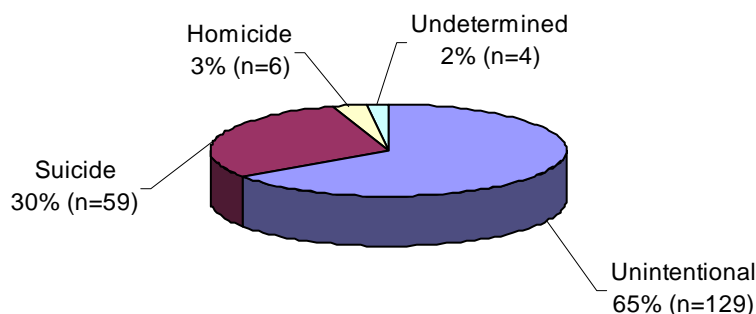


Non-Hispanic Whites accounted for the majority of injury-related deaths in Yavapai County (89 percent, n=176), followed by Hispanics (8 percent, n=16). Rates by racial/ethnic groups could not be calculated due to small sample sizes.

Unintentional injury is the leading cause of death among individuals ages 1 to 44 years in Yavapai County and in the state of Arizona as a whole.¹ Sixty-five percent of injury-related deaths in Yavapai County were due to unintentional injuries (n=129); 30 percent were suicides (n=59); 3 percent were homicides (n=6); and 2 percent were of undetermined intent (n=4). Figure 3 shows injury-related deaths by intent.

¹ Arizona Health Status and Vital Statistics 2005.

Figure 3. Injury-Related Deaths by Intent, Yavapai County, Arizona 2005 (n=198)



Yavapai County Injury-Related Deaths Compared to Other Arizona Counties

Table 1 shows the intent of injury-related deaths for residents of Yavapai County compared to residents of the rest of Arizona. The leading intent of injury-related deaths was unintentional for both Yavapai County and the remaining counties, accounting for the majority of injury-related deaths. Yavapai County had a larger percentage of suicides (30 percent) than the remaining counties (20 percent). Yavapai County had a smaller percentage of homicides (3 percent) than the remainder of Arizona (11 percent).

Table 1. Intent of Injury-Related Deaths, Yavapai County Compared to Other Arizona Counties, 2005			
Yavapai County (n=198)		Arizona, excluding Yavapai County (n=4,392)	
<u>Intent</u>	<u>Percent of Total</u>	<u>Intent</u>	<u>Percent of Total</u>
Unintentional	65	Unintentional	65
Suicide	30	Suicide	20
Homicide	3	Homicide	11
Undetermined	2	Undetermined	4

Suicide

Males accounted for the majority of suicides in Yavapai County (76 percent, n=45), while females accounted for 24 percent (n=14). Twelve percent of suicides were among individuals ages 10 to 24 years (n=7); 29 percent were among individuals ages 25 to 44 years (n=17); 35 percent were among individuals ages 45 to 64 years (n=21); and 24 percent were among adults 65 years and older (n=14). The most common cause of suicide was firearms (56 percent, n=33).

Unintentional Injury

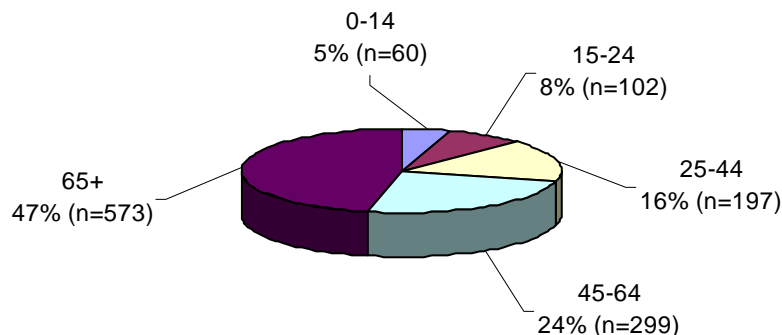
The most common causes of unintentional injury-related deaths in Yavapai County were falls (33 percent, n=43) and motor vehicle traffic crashes (32 percent, n=41). The causes of unintentional injury-related deaths during 2005 in Yavapai County are shown in Table 2.

Table 2. Causes of Unintentional Injury-Related Deaths among Yavapai County Residents, Arizona 2005		
Cause	Number	Percent
Fall	43	33%
Motor vehicle traffic	41	32%
Other/unspecified	18	14%
Poisoning	16	12%
Fire	6	5%
Suffocation	5	4%
Total	129	100%

Non-Fatal Inpatient Hospitalizations

In 2005, there were 1,231 non-fatal inpatient hospitalizations due to injury among residents of Yavapai County. Forty-three percent were male (n=532) and 57 percent were female (n=699). Forty-seven percent of the hospitalizations were among individuals 65 years and older (n=573). Figure 4 shows injury-related inpatient hospitalizations by age group among residents of Yavapai County.

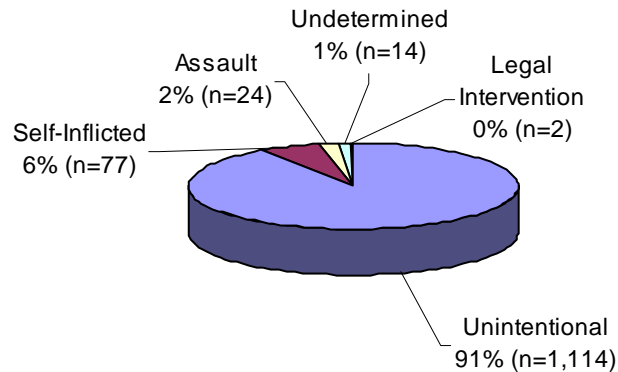
Figure 4. Injury-Related Inpatient Hospitalizations by Age Group, Yavapai County, Arizona 2005 (n=1,231)



There were 1,126 injury-related hospitalizations among White, Non-Hispanic residents of Yavapai County (91 percent). The second highest number was among Hispanics (6 percent, n=77). Rates by racial/ethnic groups could not be calculated due to small sample sizes.

Ninety-one percent of the inpatient hospitalizations were due to unintentional injuries (n=1,114); 6 percent were due to self-inflicted injuries (n=77); 2 percent were due to assaults (n=24); and 1 percent were of undetermined intent (n=14). There were two hospitalizations due to legal intervention. Figure 5 shows injury-related hospitalizations by intent.

Figure 5. Injury-Related Inpatient Hospitalizations by Intent, Yavapai County, Arizona 2005 (n=1,231)



Yavapai County Injury-Related Hospitalizations Compared to Other Arizona Counties

Table 3 shows the intent of injury-related hospitalizations for residents of Yavapai County compared to residents of the rest of Arizona. The leading intent of injury-related hospitalizations was unintentional for both Yavapai County and the remaining counties, accounting for the majority of injury-related hospitalizations. Yavapai County had a smaller percentage of hospitalizations due to assaults (2 percent) than the remainder of Arizona (6 percent).

Table 3. Intent of Injury-Related Inpatient Hospitalizations, Yavapai County Compared to Other Arizona Counties, 2005			
Yavapai County (n=1,231)		Arizona, excluding Yavapai County (n=33,793)	
<u>Intent</u>	<u>Percent of Total</u>	<u>Intent</u>	<u>Percent of Total</u>
Unintentional	91	Unintentional	84
Self-Inflicted	6	Self-Inflicted	8
Assault	2	Assault	6
Undetermined	1	Undetermined	2

The most common causes of unintentional injury-related hospitalizations in Yavapai County were falls (58 percent, n=643) and motor vehicle traffic crashes (14 percent, n=156). Table 4 shows the causes of unintentional injury-related hospitalizations among residents of Yavapai County.

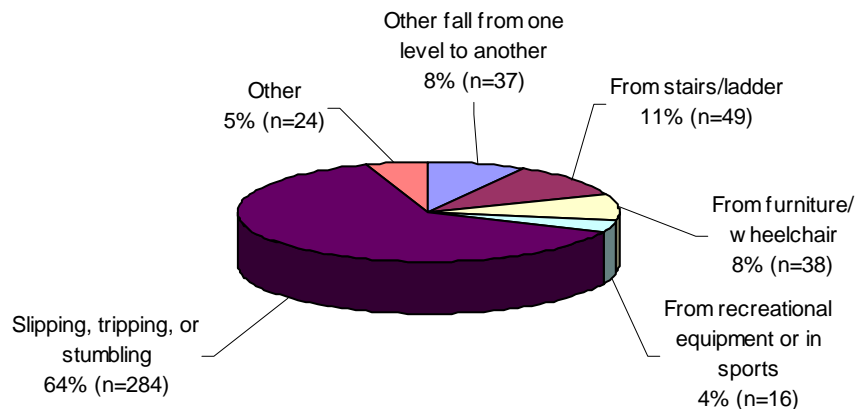
Table 4. Causes of Unintentional Injury-Related Inpatient Hospitalizations among Yavapai County Residents, Arizona 2005		
Cause	Number	Percent
Fall	643	58%
Motor vehicle traffic	156	14%
Other/unspecified	99	9%
Poisoning	58	5%
Motor vehicle non-traffic	36	3%
Overexertion	27	3%
Transport	26	2%
Nature/environment	24	2%
Struck by/against	19	2%
Cut/pierce	13	1%
Machinery	13	1%
Total	1,114	100%

Falls

Males accounted for 35 percent of unintentional fall-related hospitalizations (n=226) and females accounted for 65 percent (n=417). Four percent of fall-related hospitalizations were among children 14 years and under (n=27); 3 percent were among individuals ages 15 to 24 years (n=16); 21 percent were among individuals ages 25 to 64 years (n=135); and 72 percent were among individuals 65 years and older (n=465).

For 30 percent of unintentional fall-related inpatient hospitalizations, information regarding contributing event was not specified in the hospital discharge database (n=195). Among the hospitalizations for which contributing event was specified, 64 percent were due to slipping, tripping, or stumbling (n=284). Figure 6 shows unintentional fall-related hospitalizations by contributing event.

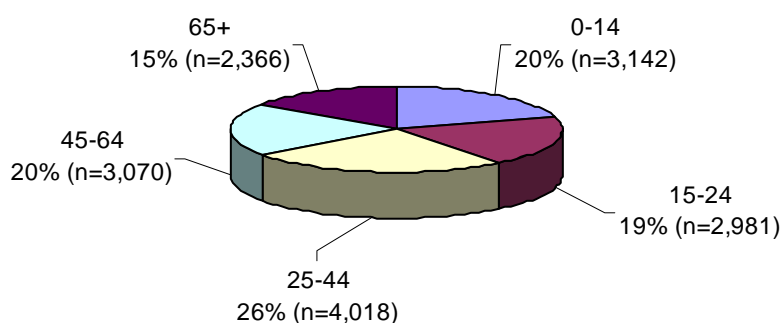
Figure 6. Inpatient Hospitalizations due to Unintentional Falls by Contributing Event, Yavapai County, Arizona 2005 (n=448)



Non-Fatal Emergency Department Visits

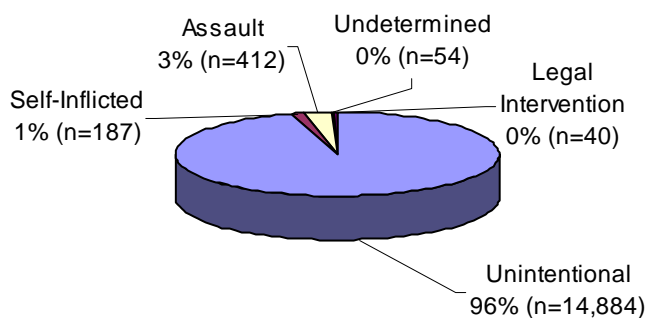
In 2005, there were 15,577 injury-related emergency department visits among residents of Yavapai County. Males accounted for 53 percent of these visits (n=8,280) and females accounted for 47 percent (n=7,297). The largest percentage of visits was among individuals ages 25 to 44 years (26 percent, n=4,018). Figure 7 shows injury-related emergency department visits by age group.

Figure 7. Injury-Related Emergency Department Visits by Age Group, Yavapai County, Arizona 2005 (n=15,577)



Ninety-six percent of the emergency department visits were due to unintentional injuries (n=14,884); 3 percent were due to assaults (n=412); and 1 percent were due to self-inflicted injuries (n=187). Fifty-four emergency department visits were of undetermined intent and 40 visits were due to legal intervention. Figure 8 shows emergency department visits by intent.

Figure 8. Injury-Related Emergency Department Visits by Intent, Yavapai County, Arizona 2005 (n=15,577)



Yavapai County Injury-Related Emergency Department Visits Compared to Other Arizona Counties

Table 5 shows the intent of injury-related emergency department visits for residents of Yavapai County compared to residents of the rest of Arizona. The leading intent of injury-related visits was unintentional for both Yavapai County and the remaining counties, accounting for the majority of injury-related visits. Yavapai County and the rest of Arizona had similar percentages of visits due to self-inflicted injuries and assaults.

Table 5. Intent of Injury-Related Emergency Department Visits, Yavapai County Compared to Other Arizona Counties, 2005			
Yavapai County (n=15,577)		Arizona, excluding Yavapai County (n=363,094)	
<u>Intent</u>	<u>Percent of Total</u>	<u>Intent</u>	<u>Percent of Total</u>
Unintentional	96	Unintentional	94
Self-Inflicted	1	Self-Inflicted	1
Assault	3	Assault	4
Undetermined	0	Undetermined	1

The most common cause of unintentional injury-related emergency department visits in Yavapai County was falls (29 percent, n=4,346). Table 6 shows the causes of unintentional injury-related emergency department visits for Yavapai County residents in 2005.

Table 6. Causes of Unintentional Injury-Related Emergency Department Visits among Yavapai County Residents, Arizona 2005		
Cause	Number	Percent
Fall	4,346	29%
Other/unspecified	1,959	13%
Struck by/against	1,822	12%
Cut/pierce	1,742	12%
Overexertion	1,730	12%
Motor vehicle traffic	1,601	11%
Nature/environment	741	5%
Other pedal cycle	283	2%
Fire/hot object	256	2%
Motor vehicle non-traffic	237	1%
Poisoning	167	1%
Total	14,884	100%

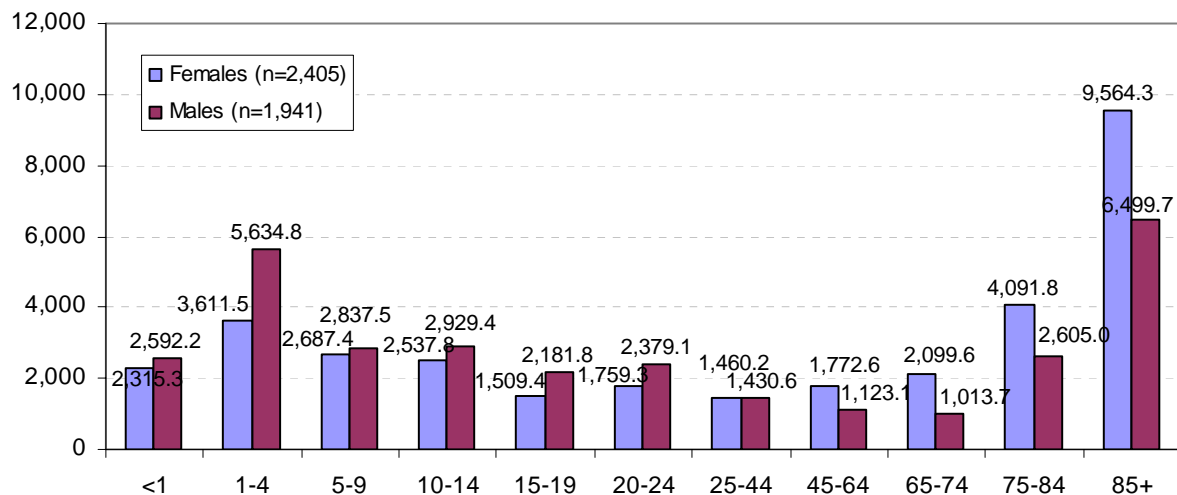
Falls

There were 4,346 emergency department visits due to unintentional falls. Males accounted for 45 percent of these visits (n=1,941) and females accounted for 55 percent (n=2,405). Twenty-six percent of fall-related emergency department visits were among children 14 years and under (n=1,112); 10 percent of visits were among individuals ages 15 to 24 years (n=448); 34 percent were among individuals ages 25 to

64 years (n=1,494); and 30 percent were among individuals 65 years and older (n=1,292).

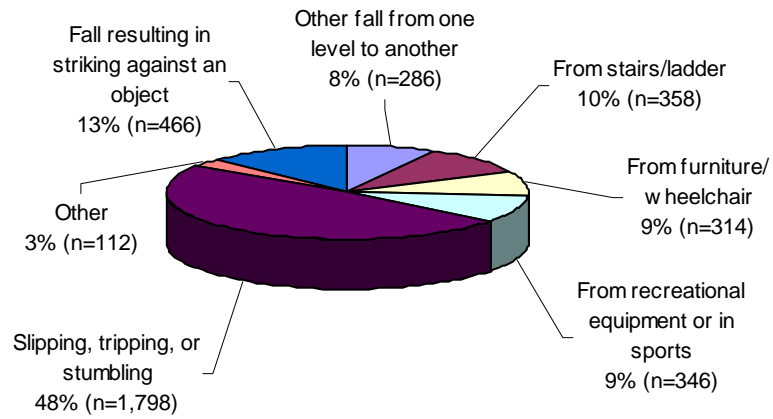
The highest rate of unintentional fall-related emergency department visits was among older adult females. Females 85 years and older had a rate of 9,564.3 fall-related emergency department visits per 100,000 residents. Figure 9 shows emergency department visit rates of unintentional falls by age group and gender.

Figure 9. Unintentional Fall-Related Emergency Department Visit Rates per 100,000, Yavapai County, Arizona 2005 (n=4,346)



For 15 percent of the unintentional fall-related emergency department visits, information regarding contributing event was not specified in the emergency department database (n=666). Among the emergency department visits for which contributing event was specified, 48 percent of unintentional falls were due to slipping, tripping, or stumbling (n=1,798). Figure 10 shows emergency department visits due to unintentional falls by contributing event.

Figure 10. Emergency Department Visits due to Unintentional Falls by Contributing Event, Yavapai County, Arizona 2005 (n=3,680)



Summary

In 2005, there were 198 injury-related deaths in Yavapai County, and the largest percentage of deaths was among adults 65 years and older (37 percent, n=73). The majority of these deaths were due to unintentional injuries (65 percent, n=129). The most common cause of unintentional injury deaths was falls (33 percent, n=43). For residents of Yavapai County, unintentional injury is the leading cause of death for individuals ages 1 to 44 years.¹ Thirty percent of injury-related deaths in Yavapai County were suicides (n=59); 3 percent were homicides (n=6); and 2 percent were of undetermined intent (n=4).

There were 1,231 non-fatal inpatient hospitalizations due to injury among residents of Yavapai County. Forty-seven percent of the hospitalizations were among adults 65 years and older (n=573). Ninety-one percent of the hospitalizations were due to unintentional injuries (n=1,114); 6 percent were due to self-inflicted injuries (n=77); 2 percent were assaults (n=24); and 1 percent were of undetermined intent (n=14). Two hospitalizations were due to legal intervention. The most common cause of unintentional injury-related hospitalizations was falls (58 percent, n=643).

There were 15,577 injury-related non-fatal emergency department visits among residents of Yavapai County in 2005. The largest percentage of visits was among individuals ages 25 to 44 years (26 percent, n=4,018). Ninety-six percent of the emergency department visits were due to unintentional injuries (n=14,884); 3 percent were due to assaults (n=412); and 1 percent were due to self-inflicted injuries (n=187). Fifty-four injury-related emergency department visits were of undetermined intent and 40 visits were due to legal intervention. The most common cause of unintentional injury-related emergency department visits was falls (29 percent, n=4,346).

Source for deaths: 2005 Death Certificate Database

Source for hospitalizations: 2005 Inpatient Hospital Discharge Database

Source for emergency department visits: 2005 Outpatient Emergency Department Database

Arizona Counties with Population, 2005

